A Correlation of

Pearson Integrated CME Project
Mathematics III Common Core
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to the

California Common Core State Standards
for Mathematics Standards Map
Mathematics III
## California Common Core State Standards for Mathematics
### Standards Map
#### Mathematics III

★ Indicates a modeling standard linking mathematics to everyday life, work, and decision-making.

(+) Indicates additional mathematics to prepare students for advanced courses.

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<th>Standard No.</th>
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<tbody>
<tr>
<td><strong>NUMBER AND QUANTITY</strong></td>
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<tr>
<td><strong>THE COMPLEX NUMBER SYSTEM</strong></td>
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<tr>
<td><strong>Cluster</strong></td>
<td>Use complex numbers in polynomial identities and equations. [Polynomials with real coefficients; apply N.CN.9 to higher degree polynomials.]</td>
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<tr>
<td>N-CN 8.</td>
<td>(+) Extend polynomial identities to the complex numbers.</td>
<td>For related content, please see Integrated CME Project Mathematics II: SE/TE: 221 (#14)</td>
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<tr>
<td>N-CN 9.</td>
<td>(+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.</td>
<td>For related content, please see Integrated CME Project Mathematics II: SE/TE: 221 (#14-15), Honors Appendix: Historical Perspective: 877</td>
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</tbody>
</table>

\(^1\) For some standards that appear in multiple courses (e.g., Mathematics II and Mathematics III), some examples included in the language of the standard that did not apply to this standards map were removed.
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<tr>
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<tbody>
<tr>
<td>A-SSE 1a.</td>
<td>Interpreting the structure of expressions. Polynomial and rational</td>
<td>For related content, please see: SE/TE: 56</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>A-SSE 1b.</td>
<td>Interpreting expressions that represent a quantity in terms of its context. Interpreting parts of an expression, such as terms, factors, and coefficients. ★</td>
<td>SE/TE: 11 (#11-13), 17-21, 23-24, 45, 46 (#13-15, 18), 50 (#5, 7, 12), 67, 53 (#3), 60 (#2), 71 (#1, 6), 72 (#10), 110-111, 412 (#7), Honors Appendix: 814-815</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>A-SSE 2.</td>
<td>Use the structure of an expression to identify ways to rewrite it.</td>
<td>SE/TE: 49, 50 (#5, 12), 51-53, 55-61, 62-68, 73 (#1-3), Honors Appendix: 814-815</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>A-SSE 4.</td>
<td>Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. For example, calculate mortgage payments. ★</td>
<td>For related content, please see: SE/TE: 91-94, 139, 143 (#12), 144 (#13-15), 572-576</td>
<td>Y</td>
<td>N</td>
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<tr>
<td></td>
<td>ARITHMETIC WITH POLYNOMIALS AND RATIONAL EXPRESSIONS</td>
<td>Perform arithmetic operations on polynomials. [Beyond quadratic]</td>
<td>SE/TE: 6-8, 9 (#9), 11 (#10)</td>
<td></td>
</tr>
<tr>
<td>A-APR 1.</td>
<td>Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.</td>
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<td>Y</td>
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<tr>
<td>A-APR 2.</td>
<td>Know and apply the Remainder Theorem: For a polynomial $p(x)$ and a number $a$, the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.</td>
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<tr>
<td>A-APR 3.</td>
<td>Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.</td>
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<tr>
<td>Cluster</td>
<td>Use polynomial identities to solve problems.</td>
<td>SE/TE: 46 (#13-14), 449 (#7), 455 (#15)</td>
<td>Y</td>
<td>Reviewer Notes</td>
</tr>
<tr>
<td>A-APR 4.</td>
<td>Prove polynomial identities and use them to describe numerical relationships. For example, the polynomial identity ((x^2 + y^2)^2 = (x^2 - y^2)^2 + (2xy)^2) can be used to generate Pythagorean triples.</td>
<td>SE/TE: 159-163, 164-167, 168, 247-251, 277-286</td>
<td>Y</td>
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<tr>
<td>A-APR 5.</td>
<td>(+) Know and apply the Binomial Theorem for the expansion of ((x + y)^n) in powers of (x) and (y) for a positive integer (n), where (x) and (y) are any numbers, with coefficients determined for example by Pascal’s Triangle.(^2)</td>
<td>SE/TE: 40 (#16-17), 69-70, 71-72, 525 (#3-4), 545-548, 549-557, 560, 563-565</td>
<td>Y</td>
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\(^1\) The Binomial Theorem may be proven by mathematical induction or by a combinatorial argument.

\(^2\) The Binomial Theorem may be proven by mathematical induction or by a combinatorial argument.
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<tr>
<td>A-APR 7.</td>
<td>(+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.</td>
<td>SE/TE: 69-70, 71-72, 549-557</td>
<td>Y</td>
<td>N</td>
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<tr>
<td>Domain</td>
<td>CREATING EQUATIONS</td>
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<tr>
<td>Cluster</td>
<td>Create equations that describe numbers or relationships. [Equations using all available types of expressions, including simple root functions]</td>
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<tr>
<td>A-CED 1.</td>
<td>Create equations and inequalities in one variable including ones with absolute value and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions. CA★</td>
<td>SE/TE: 45, 53, 59, 66, 67, 327-330, 331, 597, 599, 601, 603, 604</td>
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<tr>
<td>A-CED 2.</td>
<td>Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.</td>
<td>SE/TE: 16 (#14-15), 523-526, 527 (#13-14), 528 (#20), 537-542, 662-667</td>
<td>Y</td>
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<tr>
<td>A-CED 3.</td>
<td>Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. <em>For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.</em></td>
<td>This standard is met in the following courses, please see: Integrated CME Project Mathematics I SE/TE: 148-152, 172-177, 200-202, 203, 204 (#5-6), 265 (#11), 289-291, 292 (#1-2), 293 (#4-10), 304 (#1, 3), 305 (#4, 5), 306 (#9-10), 307 (#13), 311 (#10-12), 321, 322 (#8), 323 (#10-12), 329-332, 333 (#4-6), 334 (#10-11), 335 Integrated CME Project Mathematics II SE/TE: 73 (#9-12), 74 (#13), 79 (#7), 84 (#7-8), 175, 176 (#4), 182 (#8, 10), 160 (#1-8, 12-17), 161 (#19)</td>
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<tr>
<td>A-CED 4.</td>
<td>Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *</td>
<td>SE/TE: Honors Appendix: 810-815</td>
<td>Y</td>
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<tr>
<td>Domain</td>
<td>REASONING WITH EQUATIONS AND INEQUALITIES</td>
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<tr>
<td>Cluster</td>
<td>Understand solving equations as a process of reasoning and explain the reasoning. [Simple radical and rational]</td>
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<tr>
<td>A-REI 2.</td>
<td>Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.</td>
<td>SE/TE: 53 (#4), 67 (#6), 545-546, 547 (#9-10), 548 (#12-13), 736 (#6), 737 (#10), 743 (#2), 744 (#10)</td>
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<tr>
<td>Cluster</td>
<td>Represent and solve equations and inequalities graphically. [Combine polynomial, rational, radical, absolute value, and exponential functions.]</td>
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<tr>
<td>A-REI 11.</td>
<td>Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions. ★</td>
<td>SE/TE: 17-21, 25-27, 28 (#6-9), 54 (#8), 520-528, 537-538, 541 (#1-2), 542 (#12), 592-599, 642-647</td>
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<tr>
<td>Functions</td>
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<tr>
<td>Cluster</td>
<td>Interpreting</td>
<td>SE/TE: 520-522, 524 (#1), 526, 537-540, 649-652, 655 (#12)</td>
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<td>Cluster</td>
<td>Analyze functions using different representations. [Include rational and radical; focus on using key features to guide selection of appropriate type of model function.]</td>
<td>This standard is met in the following courses, please see: Integrated CME Project Mathematics I SE/TE: 392 (#8), 393 (#11-12), 395 (#17-18) Integrated CME Project Mathematics II SE/TE: 300-304, 306, 307 (#9-10), 308 (#1), 335 (#6-8), 337 (#18)</td>
<td>Y</td>
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<tr>
<td>F-IF 7b.</td>
<td>Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. ★</td>
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<tr>
<td>F-IF 7c.</td>
<td>Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior. ★</td>
<td>SE/TE: 13, 14 (#12), 16 (#14-18), 25, 27 (#1-2), 28 (#6-9), 507-508, 509 (#10-11, 13), 510-514, 517 (#14), 521-522, 525 (#2-4), 527 (#10-12, 14), 528 (#15, 17-18), 536 (#17), 537-538</td>
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<tr>
<td>F-IF 7e.</td>
<td>Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude. ⭐</td>
<td>SE/TE: 333 (#8), 335-336, 338-339, 340-342, 403-405, 406 (#7), 407 (#10-11), 414-415, 416-417, 424-428, 429-430, 431 (#9), 432-439, 440 (#16, 18), 441 (#1, 3), 592-596, 597 (#8), 599 (#22), 627, 632 (#5), 642-643, 644 (#3), 646 (#11, 13), 647 (#16), 649-652, 653-654, 655 (#9, 12-13), 656 (15-16), 659 (3-4), 660 (#7), 661 (#8), 670, 672 (#6), 674 (#6), 676 (#10)</td>
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<tr>
<td>F-IF 8.</td>
<td>Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.</td>
<td>SE/TE: 79-81, 82, 84 (#11), 507-508, 509, 510-511, 514, 516 (#6), 529-533, 534 (#2-4, 6), 535, 536 (#13), 608 (#1-2)</td>
<td>Y</td>
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<tr>
<td>F-IF 9.</td>
<td>Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).</td>
<td>This standard is met in the following courses, please see: Integrated CME Project Mathematics II SE/TE: 133 (#1), 136 (#9), 139 (#5), 141 (#14), 177-181, 182 (#6-12), 183-188, 189 (#1-2, 4), 190 (#5-6, 9), 191 (#12), 193 (#1-3), 197 (#4)</td>
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<tr>
<td>Domain</td>
<td>BUILDING FUNCTIONS</td>
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<tr>
<td>Cluster</td>
<td>Build a function that models a relationship between two quantities. [Include all types of functions studied.]</td>
<td>For related content, please see: SE/TE: 27-29</td>
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<tr>
<td>F-BF 1b.</td>
<td>Write a function that describes a relationship between two quantities. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model. *</td>
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<tr>
<td>Cluster</td>
<td>Build new functions from existing functions. [Include simple, radical, rational, and exponential functions; emphasize common effect of each transformation across function types.]</td>
<td>For related content, please see: SE/TE: 338 (#11-12), 406 (#4, 7), 407 (#10, 12), 421, 422 (#11), 423 (#12), 428, 429 (#7), 430-431, 435-436, 437, 438 (#5-8), 439, 440 (#18), 509 (#10-11, 13), 525-526, 599 (#22), 608 (#1), 613 (#13)</td>
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<tr>
<td>F-BF 4a.</td>
<td>Find inverse functions. Solve an equation of the form ( f(x) = c ) for a simple function ( f ) that has an inverse and write an expression for the inverse. <em>For example, ( f(x) = (x + 1)/(x - 1) ) for ( x \neq 1 ).</em></td>
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**Domain**
LINEAR, QUADRATIC, AND EXPONENTIAL MODELS

**Cluster**
Construct and compare linear, quadratic, and exponential models and solve problems.

| F-LE 4. | For exponential models, express as a logarithm the solution to \( ab^{ct} = d \) where \( a, c, \) and \( d \) are numbers and the base \( b \) is 2, 10, or \( e \); evaluate the logarithm using technology. ★ [Logarithms as solutions for exponentials] |

<p>| F-LE 4.1 | Prove simple laws of logarithms. CA ★ | SE/TE: 633-641 |
| F-LE 4.2 | Use the definition of logarithms to translate between logarithms in any base. CA ★ | SE/TE: 627-632, 633-641, 643-644, 657, 658, 659-61, 674-679 |
| F-LE 4.3 | Understand and use the properties of logarithms to simplify logarithmic numeric expressions and to identify their approximate values. CA ★ | SE/TE: 625-626, 627-632, 633-641, 643-644, 648-656, 657 |</p>
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<td>TRIGONOMETRIC FUNCTIONS</td>
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<tr>
<td>Cluster</td>
<td>Extend the domain of trigonometric functions using the unit circle.</td>
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<tr>
<td>F-TF 1.</td>
<td>Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.</td>
<td>SE/TE: 395-396, 397-399, 400, 407 (#15-16)</td>
<td>Y 🟢</td>
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<tr>
<td>F-TF 2.</td>
<td>Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.</td>
<td>SE/TE: 316-321, 395-396, 397-402, 403-407</td>
<td>Y 🟢</td>
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<tr>
<td>F-TF 2.1</td>
<td>Graph all 6 basic trigonometric functions. CA</td>
<td>SE/TE: 333-334, 335-339, 340-344, 351, 414-417, 418, 421-423, 424-431, 441</td>
<td>Y 🟢</td>
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<tr>
<td>Cluster</td>
<td>Model periodic phenomena with trigonometric functions.</td>
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<tr>
<td>F-TF 5.</td>
<td>Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.★</td>
<td>For related content, please see: SE/TE: 333 (#6, 8), 335-336, 422, 533-536, 437 (#2), 438 (#6, 9), 439 (#12), 440 (#18), 441 (#1, 3)</td>
<td>Y 🟢</td>
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<tr>
<td>G-SRT 9.</td>
<td>(+) Derive the formula $A = \frac{1}{2}ab \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.</td>
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<tr>
<td>G-SRT 10.</td>
<td>(+) Prove the Laws of Sines and Cosines and use them to solve problems.</td>
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<tr>
<td>G-SRT 11.</td>
<td>(+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).</td>
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**Publisher Citations**

- **SE/TE:** 353-355, 356-362
- **SE/TE:** 363-366, 366 (#1-3), 367-369, 370-376, 377-378, 379 (#18, 20)
- **SE/TE:** 368 (#8-9, 13), 369 (#14-18, 19), 378 (#9, 15-17), 379 (#20)
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<td>G-GPE 3.1</td>
<td>Given a quadratic equation of the form $ax^2 + by^2 + cx + dy + e = 0$, use the method for completing the square to put the equation into standard form; identify whether the graph of the equation is a circle, ellipse, parabola, or hyperbola and graph the equation. [In Mathematics III, this standard addresses only circles and parabolas.] CA</td>
<td>SE/TE: 745, 746, 758</td>
<td>Y</td>
<td>Reviewer Notes</td>
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<tr>
<td>Domain</td>
<td>EXPRESSING GEOMETRIC PROPERTIES WITH EQUATIONS</td>
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<tr>
<td>Cluster</td>
<td>Translate between the geometric description and the equation for a conic section.</td>
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<tr>
<td>Domain</td>
<td>GEOMETRIC MEASUREMENT AND DIMENSION</td>
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<tr>
<td>Cluster</td>
<td>Visualize relationships between two-dimensional and three-dimensional objects.</td>
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<tr>
<td>G-GMD 4.</td>
<td>Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.</td>
<td>SE/TE: 735, 736 (#7-8), 738-742</td>
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<tr>
<td>G-MG 1.</td>
<td>Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder). ★</td>
<td>This standard is met in the following courses, please see: Integrated CME Project Mathematics II For related content, please see: SE/TE: 443 (#13), 707-709, 767 (#5-8), 768 (#9-12)</td>
<td>Y</td>
<td></td>
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<tr>
<td>G-MG 2.</td>
<td>Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot). ★</td>
<td>SE/TE: 731 (#2), 733 (#8)</td>
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<tr>
<td>G-MG 3.</td>
<td>Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios). ★</td>
<td>SE/TE: 719-723, 725-727</td>
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<td>Y</td>
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<tr>
<td>STATISTICS AND PROBABILITY</td>
<td></td>
<td></td>
<td>N</td>
<td>Reviewer Notes</td>
</tr>
<tr>
<td>Domain</td>
<td>INTERPRETING CATEGORICAL AND QUANTITATIVE DATA</td>
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<tr>
<td>Cluster</td>
<td>Summarize, represent, and interpret data on a single count or measurement variable.</td>
<td>SE/TE: 273-275, 277-283, 284 (#5), 286 (#13), 287-290, 291-292</td>
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<tr>
<td>S-ID 4.</td>
<td>Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve. ★</td>
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<tr>
<td>Domain</td>
<td>MAKING INFERENCES AND JUSTIFYING CONCLUSIONS</td>
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<tr>
<td>S-IC 1.</td>
<td>Understand statistics as a process for making inferences about population parameters based on a random sample from that population. ★</td>
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<tr>
<td>S-IC 2.</td>
<td>Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model? ★</td>
<td>For related content, please see: SE/TE: 175-176, 227-232, 235-236, 291 (#5)</td>
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<tr>
<td>Cluster</td>
<td>Make inferences and justify conclusions from sample surveys, experiments, and observational studies.</td>
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<td>Y</td>
<td>Reviewer Notes</td>
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<tr>
<td>S-IC 3.</td>
<td>Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each. ★</td>
<td>SE/TE: 237-246, 252, 253, 254, 255, 258 (#9), 259 (#12)</td>
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<td>S-IC 4.</td>
<td>Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling. ★</td>
<td>For related content, please see: SE/TE: 209-210, 235-236, 252-255, 256 (#5), 257 (#6), 258 (#8), 261-265, 266-270</td>
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<tr>
<td>S-IC 5.</td>
<td>Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant. ★</td>
<td>SE/TE: 237-239, 240-246, 255 (#1), 256 (#3-4), 258 (#10, 12)</td>
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<tr>
<td>Domain</td>
<td>USING PROBABILITY TO MAKE DECISIONS</td>
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<tr>
<td>Cluster</td>
<td>Use probability to evaluate outcomes of decisions. [Include more complex situations.]</td>
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<tr>
<td>S-MD 6.</td>
<td>(+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator). ★</td>
<td>SE/TE: 175-176, 177-183</td>
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<tr>
<td>S-MD 7.</td>
<td>(+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game). ★</td>
<td>SE/TE: 198-205</td>
<td>Y</td>
<td>N</td>
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Note: Y = Yes, N = No
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<tr>
<td>MP 1.</td>
<td>Make sense of problems and persevere in solving them.</td>
<td>The goal of the CME project is for students to engage in different activities to develop a deep understanding of mathematics. In addition to providing extensive practice in critical thinking and problem-solving skills, the problems are geared to engage students in communicating and exploring mathematics with In-Class Experiments and Project. Each investigation includes a Getting Started lesson that activates prior knowledge and explores new ideas. Mind in Action offers opportunities for communication and reflection through student-student and student-teacher dialogues. <strong>SE/TE:</strong> <strong>Checking Your Understanding:</strong> 9 (#4), 15 (#12), 459 (#3), 596 (#1) <strong>On Your Own:</strong> 68 (#7), 304 (#9-10), 338 (#11-12), 376 (#15), 460 (#13), 590 (#15) <strong>Maintain Your Skills:</strong> 106 (#4), 136 (#23), 205 (#13), 309 (#17-18), 557 (#22)</td>
<td>Y</td>
<td>N</td>
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<tr>
<td>MP 2.</td>
<td>Reason abstractly and quantitatively.</td>
<td>The goal of the CME project is for students to engage in different activities to develop a deep understanding of mathematics. In addition to providing extensive practice in critical thinking and problem-solving skills, the problems are geared to engage students in communicating and exploring mathematics with In-Class Experiments and Project. Each investigation includes a Getting Started lesson that activates prior knowledge and explores new ideas. Mind in Action offers opportunities for communication and reflection through student-student and student-teacher dialogues. <strong>SE/TE:</strong> <strong>Checking Your Understanding:</strong> 27 (#3), 250 (#7), 320 (#8), 429 (#2), 488 (#8) <strong>On Your Own:</strong> 23 (#14), 46 (#13, 14), 53 (#5), 111 (#6), 350 (#8), 459 (#11), 599 (#19) <strong>Maintain Your Skills:</strong> 24 (#17), 72 (#10), 468 (#15-16)</td>
<td>Y</td>
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<tr>
<td>MP 3.</td>
<td>Construct viable arguments and critique the reasoning of others.</td>
<td>The goal of the CME project is for students to engage in different activities to develop a deep understanding of mathematics. In addition to providing extensive practice in critical thinking and problem-solving skills, the problems are geared to engage students in communicating and exploring mathematics with In-Class Experiments and Project. Each investigation includes a Getting Started lesson that activates prior knowledge and explores new ideas. Mind in Action offers opportunities for communication and reflection through student-student and student-teacher dialogues. <strong>SE/TE:</strong> Checking Your Understanding: 182 (#2), 224 (#7), 319 (#4) On Your Own: 217 (#13), 225 (#11), 286 (#13), 305 (#14-15), 362 (#14), 369 (#17), 497 (#13-14), 598 (#14), 599 (#20), 761 (#12) Maintain Your Skills: 576 (#10), 724 (#16)</td>
<td>Y</td>
<td>Reviewer Notes</td>
</tr>
<tr>
<td>MP 3.1</td>
<td>Students build proofs by induction and proofs by contradiction. <strong>CA</strong> [for higher mathematics only].</td>
<td>N/A</td>
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California Common Core State Standards Map: Mathematics III

July 2014
Page 22
MP 4. Model with mathematics.

The goal of the CME project is for students to engage in different activities to develop a deep understanding of mathematics. In addition to providing extensive practice in critical thinking and problem-solving skills, the problems are geared to engage students in communicating and exploring mathematics with In-Class Experiments and Project. Each investigation includes a Getting Started lesson that activates prior knowledge and explores new ideas. Mind in Action offers opportunities for communication and reflection through student-student and student-teacher dialogues.

**SE/TE:**

- **Checking Your Understanding:** 121 (#2), 250 (#5), 314 (#4), 338 (#3), 360 (#6), 429 (#2), 437 (#1-2)
- **On Your Own:** 122 (#7), 361 (#10, 13), 406 (#7), 517 (#12), 580 (#10-13), 591 (#16)
- **Maintain Your Skills:** 123 (#12), 309 (#17-18), 509 (#13), 548 (#15)
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<td>MP 5.</td>
<td>Use appropriate tools strategically.</td>
<td>The goal of the CME project is for students to engage in different activities to develop a deep understanding of mathematics. In addition to providing extensive practice in critical thinking and problem-solving skills, the problems are geared to engage students in communicating and exploring mathematics with In-Class Experiments and Project. Each investigation includes a Getting Started lesson that activates prior knowledge and explores new ideas. Mind in Action offers opportunities for communication and reflection through student-student and student-teacher dialogues.</td>
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<p>| SE/TE: |
| Checking Your Understanding: | 83 (#7), 338 (#8), 400 (#1), 665 (#4-6), 743 (#1) |
| On Your Own: | 102 (#7), 401 (#12), 417 (#10) |
| For You To Do: | 398 (#5-7), 399 (#8-11), 415 (#1), 421 (#1-4), 740 (#4) |</p>
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| MP 6.       | Attend to precision.| The goal of the CME project is for students to engage in different activities to develop a deep understanding of mathematics. In addition to providing extensive practice in critical thinking and problem-solving skills, the problems are geared to engage students in communicating and exploring mathematics with In-Class Experiments and Project. Each investigation includes a Getting Started lesson that activates prior knowledge and explores new ideas. Mind in Action offers opportunities for communication and reflection through student-student and student-teacher dialogues. **SE/TE:**  
**Checking Your Understanding:** 110 (#2), 115 (#2-3)  
**On Your Own:** 67 (#6), 89 (#11), 94 (#8), 99 (#9), 102 (#7), 141 (#9), 144 (#13), 196 (#8)  
**Maintain Your Skills:** 99 (#11), 144 (#18), 154 (#6), 251 (#15), 369 (#19), 407 (#15-16) | Y | N | Reviewer Notes |

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<td>MP 7.</td>
<td>Look for and make use of structure.</td>
<td>The goal of the CME project is for students to engage in different activities to develop a deep understanding of mathematics. In addition to providing extensive practice in critical thinking and problem-solving skills, the problems are geared to engage students in communicating and exploring mathematics with In-Class Experiments and Project. Each investigation includes a Getting Started lesson that activates prior knowledge and explores new ideas. Mind in Action offers opportunities for communication and reflection through student-student and student-teacher dialogues. <strong>SE/TE:</strong> Checking Your Understanding: 314 (#5) On Your Own: 84 (#10), 136 (#21), 140 (#7), 141 (#8), 149 (#3), 162 (#4) Maintain Your Skills: 29 (#15), 102 (#9), 151 (#9), 158 (#9), 167 (#8), 468 (#15-16)</td>
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<td>MP 8.</td>
<td>Look for and express regularity in repeated reasoning.</td>
<td>The goal of the CME project is for students to engage in different activities to develop a deep understanding of mathematics. In addition to providing extensive practice in critical thinking and problem-solving skills, the problems are geared to engage students in communicating and exploring mathematics with In-Class Experiments and Project. Each investigation includes a Getting Started lesson that activates prior knowledge and explores new ideas. Mind in Action offers opportunities for communication and reflection through student-student and student-teacher dialogues. SE/TE: <strong>Checking Your Understanding:</strong> 93 (#2-3, 5-7), 98 (#2-5), 133 (#4-7), 140 (#1, 3), 148 (#1) <strong>On Your Own:</strong> 94 (#8-13), 134 (#9-10), 135 (#13-17), 136 (#21-22), 140 (#7), 141 (#8-9), 142 (#10-11), 143 (#12), 158 (#6, 8) <strong>Maintain Your Skills:</strong> 94 (#15), 99 (#11), 136 (#23)</td>
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